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UNITED STATES PATENT AND TRADEMARK OFFICE

**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Ex parte DAVID B. MILLER

Appeal 2008-2131
Application 09/995,009
Technology Center 3700

Decided: June 25, 2008

Before DONALD E. ADAMS, RICHARD M. LEBOVITZ, and
FRANCISCO C. PRATS, *Administrative Patent Judges*.

PRATS, *Administrative Patent Judge*.

DECISION ON APPEAL

This is an appeal under 35 U.S.C. § 134 involving claims to a method of making a clip and irrigation hose assembly. The Examiner has rejected the claims as obvious. We have jurisdiction under 35 U.S.C. § 6(b). We affirm.

STATEMENT OF THE CASE

Claims 7 and 8 are pending and on appeal (App. Br. 5).¹ Claims 7 and 8 read as follows:

7. A method of making a clip and irrigation hose assembly comprising:

a) securing a plurality of clips having a body with an opening at spaced intervals on an irrigation hose having an outer surface at a factory by enlarging the opening to allow the clip to be inserted on the hose and then releasing the clip to secure the clip to the hose[,] the clip having an inner diameter sized and configured to be secured around the hose and also be moveable on the hose, wherein the clip is in contact with the outer surface of the hose; and

b) coiling the clips and hose, whereby the assembly of clips and hose are able to be shipped to a site for subsequent installation by suspending the clips from a wire.

8. The method of claim 7, further comprising securing the clips to the hose by an automatic process.

The Examiner applies the following documents in rejecting the claims:

Oetiker	US 5,321,879	Jun. 21, 1994
Oetiker	US 4,425,781	Jan. 17, 1984

The following rejection is before us for review:

Claims 7 and 8 stand rejected under 35 U.S.C. § 103(a) as being obvious in view of Appellant's admitted prior art ("AAPA"), Oetiker '879, and Oetiker '781 (Ans. 3-4).

¹ Appeal Brief filed September 2, 2005.

OBVIOUSNESS

ISSUE

The Examiner contends that Appellant's admitted prior art, as disclosed at page 1 of the Specification, "discloses a method of making a clip and irrigation hose assembly wherein a wound hose is delivered to a site where it is unwound and clips are manually attached to the hose typically by a snap fit" (Ans. 3). The Examiner concedes that "AAPA does not disclose the clip being pre-assembled to the hose before being shipped to a site as a clip and hose assembly for subsequent installation of the hose with the clips already assembled to the hose," and cites Oetiker '879 and '781 to meet that limitation (*id.*). The Examiner contends that one of ordinary skill would have considered it obvious "to have pre-assembled the clips of AAPA on the hose before shipping the hose to a different site, in light of the teachings of Oetiker '879 or Oetiker ['781], in order to save time on assembly" (*id.* at 3-4).

Appellant contends that copying of the claimed process by competitors is evidence that the claimed process is non-obvious (App. Br. 9). Appellant contends that the Examiner failed to make out a prima facie case of obviousness because "[t]he references are totally diverse" and therefore "there is no teaching in the references that would suggest to one of ordinary skill in the art to make the proposed combination or modification suggested by the Examiner" (*id.* at 10). Appellant further contends that "the Oetiker references are non-analogous art with respect to a person manufacturing irrigation hose" (*id.* at 11).

The issue with respect to this rejection, then, is whether the Examiner erred in concluding that a person of ordinary skill in this art, aware that clips

were placed onto irrigation hoses at the irrigation site, would have found it obvious to instead place the clips onto the hoses at a factory before shipping them to the irrigation site.

FINDINGS OF FACT (“FF”)

1. Claim 7 recites a method of making a clip and irrigation hose assembly. A plurality of clips is secured at spaced intervals on an irrigation hose at a factory by enlarging the clip’s opening and then inserting the clip onto the hose. The clips must have an inner diameter sized and configured to be secured around the hose and also be moveable on the hose while in contact with the hose. The clip/hose assembly is then coiled such that it can be shipped to a site for subsequent installation by suspending the clips from a wire.

Claim 8 recites the method of claim 7, and further requires the clips to be secured to the hose by an automatic process.

2. Page 1 of Appellant’s Specification discloses:

2. Description of the Prior Art

Dripper line hoses are well known in the art and are used for the irrigation of a variety of plants. The irrigation may take place in vineyards, orchards, greenhouses, etc. The hoses may be any suitable hose such as a polyethylene hose having a wall thickness of approximately 40 millimeters. The diameter of the hoses typically range from 16 millimeters to 20 millimeters. The dripper line hoses are typically hung from the vines or trellis wire. In the past, the hose has been delivered to the site where it is unwound and the clips are manually attached to the hose typically by a snap fit. Then, the wire is secured to the clip to hang the dripper line hose for subsequent use during irrigation. This process is slow and expensive as it requires substantial labor to install the clips over the hundreds of feet of hose.

3. Oetiker ‘781 discloses a method “for manufacturing, handling and installing hose clamps pursuant to which the clamp structures are stamped out as flat blanks, [and] are shipped as flat blanks to the user where they are preformed into an ideal shape for assembly about the object to be fastened” (Oetiker ‘781, abstract). Oetiker ‘781 discloses that once the hose/clamp combination is pre-assembled, “the final tightening of the clamp structure by contraction of the ear can take place at any suitable location along the assembly line, for instance, at a place remote from the location of the pre-assembly” (*id.* at col. 4, ll. 44-47).

4. Oetiker ‘879 discloses prior art methods in which “open clamps are used on the assembly line in the automobile industry to fasten axle boots onto axles. For that purpose, open clamps which are already preformed into substantially circular configuration are placed about the axle boots, are manually closed by engagement of the hooks provided on the inner band portion in apertures in the outer band portion and are thereafter fastened by contraction” (Oetiker ‘879, col. 1, ll. 21-29). Oetiker discloses that automating that process “assure[s] a foolproof installation of the clamp structure, which is independent of human errors that cause variations in the quality of the assembled structure” (*id.* at col. 2, ll. 5-8).

PRINCIPLES OF LAW

Recently addressing the question of obviousness, the Supreme Court reaffirmed that under the controlling inquiry, “the scope and content of the prior art are to be determined; differences between the prior art and the claims at issue are to be ascertained; and the level of ordinary skill in the pertinent art resolved.” *KSR Int’l Co. v. Teleflex Inc.*, 127 S. Ct. 1727, 1734 (2007) (quoting *Graham v. John Deere Co. of Kansas City*, 383 U.S. 1, 17-

18 (1966)).

In proceedings before the Patent and Trademark Office, the Examiner bears the burden of establishing a *prima facie* case of obviousness based upon the prior art. “[The Examiner] can satisfy this burden only by showing some objective teaching in the prior art or that knowledge generally available to one of ordinary skill in the art would lead that individual to combine the relevant teachings of the references.”

In re Fritch, 972 F.2d 1260, 1265 (Fed. Cir. 1992) (citations omitted, bracketed material in original). Thus, as the Supreme Court pointed out, “a patent composed of several elements is not proved obvious merely by demonstrating that each of its elements was, independently, known in the prior art.” *KSR*, 127 S. Ct. at 1741.

While holding that some rationale must be supplied for a conclusion of obviousness, the Court nonetheless rejected a “rigid approach” to the obviousness question, and instead emphasized that “[t]hroughout this Court's engagement with the question of obviousness, our cases have set forth an expansive and flexible approach” *Id.* at 1739. The Court also rejected the use of “rigid and mandatory formulas” as being “incompatible with our precedents.” *Id.* at 1741; *see also* 1742-43 (“Rigid preventative rules that deny factfinders recourse to common sense, however, are neither necessary under our case law nor consistent with it.”).

The Court thus reasoned that the analysis under 35 U.S.C. § 103 “need not seek out precise teachings directed to the specific subject matter of the challenged claim, for a court can take account of the inferences and creative steps that a person of ordinary skill in the art would employ.” *Id.* at 1741. The Court further advised that “[a] person of ordinary skill is . . . a person of ordinary creativity, not an automaton.” *Id.* at 1742.

Regarding hindsight reasoning, the Court stated that “[a] factfinder should be aware, of course, of the distortion caused by hindsight bias and must be cautious of arguments reliant upon *ex post* reasoning. Rigid preventative rules that deny factfinders recourse to common sense, however, are neither necessary under our case law nor consistent with it.” *Id.* at 1742-1743 (citations omitted).

ANALYSIS

We agree with the Examiner that one of ordinary skill in the art would have considered claims 7 and 8 *prima facie* obvious in view of the cited prior art. The admitted prior art method of deploying an irrigation hose/clip combination differs from the method of claims 7 and 8 in that the claims recite using an automatic process to pre-assemble the hose/clip combination at a factory before coiling the hose for shipping.

Advised by Appellant’s admitted prior art of the significant time and effort required for assembling clips onto irrigation hoses at the irrigation site (FF 2), one of ordinary skill in the art would have reasonably inferred that that time and effort would be saved by using automated methods to place the clips on to the hose at the time of manufacture, particularly having been apprised by the Oetiker patents of the desirability of forming factory-completed, pre-made clamp assemblies for subsequent use (*see* FF 3, 4). We therefore agree with the Examiner that one of ordinary skill in the art, being a person of ordinary creativity and common sense, *see KSR*, 127 S. Ct. at 1742-43, would have been prompted to pre-make the admitted prior art’s irrigation hose/clip assembly at a factory by automated means, in a manner like that disclosed by the Oetiker patents, in order to save the significant time and effort known to be normally expended at the site of the hose’s

deployment (FF 2). We therefore also agree with the Examiner that the process recited in claims 7 and 8 would have been prima facie obvious to a person of ordinary skill in the art.

Appellant argues that the labor intensiveness of attaching clips to irrigation hoses “has been a long standing problem in the industry. In fact, since the introduction of the present invention, several competitors have copied the invention and are now using a preassembly approach. This is further evidence of the non-obviousness of the present invention” (App. Br. 9).

Appellant’s argument does not persuade us that the Examiner erred in maintaining the obviousness rejection. It is well settled that objective evidence of non-obviousness such as copying must be considered when evaluating claims under § 103. *See In re Rouffet*, 149 F.3d 1350, 1355 (Fed. Cir. 1998). However, it is also well settled that argument by counsel cannot take the place of evidence. *In re Cole*, 326 F.2d 769, 773, (CCPA 1964); *In re Geisler*, 116 F.3d 1465, 1471 (Fed. Cir. 1997).

Moreover, establishing non-obviousness from the failure of others to invent the claimed subject matter requires “evidence that, notwithstanding knowledge of the references, the art tried and failed to solve the problem.” *In re Wright*, 569 F.2d 1124, 1127 (CCPA 1977); *see also, In re Kahn*, 441 F.3d 977, 990 (Fed. Cir. 2006) (“Absent a showing of long-felt need or the failure of others, the mere passage of time without the claimed invention is not evidence of nonobviousness.” (quoting *Iron Grip Barbell Co. v. USA Sports, Inc.*, 392 F.3d 1317, 1325 (Fed. Cir. 2004))).

In the instant case, Appellant points to no evidence of record showing that the claimed process has been copied, or any evidence showing a long-

felt need, or that the prior art tried but failed to solve the problem. We therefore do not agree with Appellant that there is sufficient objective evidence of non-obviousness to rebut the Examiner's prima facie case.

Appellant argues that the clips may be used to direct the water as it falls from the hose (App. Br. 9), and that because the claimed clips are movable to direct water in that manner, the claimed clips are distinguishable from the clips of Oetiker '879, which requires the clips to be placed in a predetermined position (*id.* at 11; *see also* Reply Br. 1). Appellant urges that because the clips of the Oetiker patents are not movable, the combination of prior art advanced by the Examiner would not work, because “[i]f the clamps of the Oetiker patent were used, they would not be adjustable and the drips of water could not be precisely located as is required in the irrigation art” (App. Br. 11; *see also* Reply Br. 2).

We are not persuaded by this argument. The Examiner's position is not that the clamps of the Oetiker patents would be substituted for the clips used on the irrigation hose used in Appellant's admitted prior art. Rather, as noted above, the Examiner's position is that one of ordinary skill in the art would have been prompted to assemble the clip/hose combination of Appellant's admitted prior art at the factory to save assembly time at the irrigation site (*see* Ans. 3-4). Thus, rather than relying on the Oetiker patents to meet the limitation requiring movable clips on an irrigation hose, the Examiner relies on Appellant's admitted prior art to meet that limitation.

Appellant argues that the Oetiker patents are directed to factory manufacturing processes in the automobile industry, which are “not at all related to an irrigation hose,” and that the Examiner therefore failed to make out a prima facie case of obviousness since “[t]here is no suggested

relationship between the admitted prior art and that of the cited references that would cause one to combine the references as suggested” (App. Br. 10). Appellant urges that “[t]he references by themselves must suggest a reason for the combination. One should not base an obviousness rejection upon what a person skilled in the art might try or might find obvious to try, but rather what the prior art would have led a person skilled in the art to do” (*id.*).

Appellant’s argument is not persuasive. As noted above, the Supreme Court recently reaffirmed that a proper obviousness analysis is not based solely or strictly on the references’ disclosures, but also on what one of ordinary skill in the art, being a person of ordinary creativity and common sense, would reasonably infer from the references. *See KSR*, 127 S. Ct. 1741-43. The Court also noted that:

When there is a design need or market pressure to solve a problem and there are a finite number of identified, predictable solutions, a person of ordinary skill has good reason to pursue the known options within his or her technical grasp. If this leads to the anticipated success, it is likely the product not of innovation but of ordinary skill and common sense. In that instance the fact that a combination was obvious to try might show that it was obvious under § 103.

Id. at 1742.

In the instant case, according to Appellant’s admitted prior art, a person of ordinary skill in the art was aware that assembling clips on to irrigation hoses suffered from the problem of being slow, expensive, and requiring substantial labor at the irrigation site (FF 2). One of ordinary skill, advised by the Oetiker patents of the suitability of automatically pre-assembling hose/clamp combinations (FF 3) and axle boot/clamp assemblies

(FF 4) at a factory, would have reasonably inferred that it would be similarly suitable to pre-assemble the irrigation hose/clip combination at a factory in a manner analogous to that described in the Oetiker patents. Thus, because one of ordinary skill in the art viewing these teachings would have recognized that pre-assembling the irrigation hose/clip combination was a suitable solution to the labor-intensive hose assembly at the irrigation site, we agree with the Examiner that claims 7 and 8 would have been obvious under § 103.

Appellants argue that “the Oetiker references are non-analogous art with respect to a person manufacturing irrigation hose” (App. Br. 11).

We are not persuaded by this argument. As stated in *In re Clay*, 966 F.2d 656, 658-59 (Fed. Cir. 1992), the two criteria for evaluating whether a reference is sufficiently analogous to the invention are “(1) whether the art is from the same field of endeavor, regardless of the problem addressed, and (2) if the reference is not within the field of the inventor’s endeavor, whether the reference still is reasonably pertinent to the particular problem with which the inventor is involved.”

In the instant case, even if one assumes that manufacturing an irrigation hose/clip combination is a different endeavor than manufacturing an automobile hose/clamp combination, we agree with the Examiner that the Oetiker patents are nonetheless reasonably pertinent to the inventor’s problem. One of ordinary skill in the art of manufacturing irrigation hose would have been aware that the hose needed clips placed on it before use (*see* FF 2). The Oetiker patents are similarly concerned with products, including hoses, that require clamps to be fastened before subsequent use (*see* FF 3 and 4).

Thus, the claimed process and the methods of Oetiker are all concerned with assembling clamps or clips onto hoses or similar objects before their ultimate use. We therefore agree with the Examiner that one of ordinary skill in the art of manufacturing irrigation hose would have considered the Oetiker patents' disclosures of the suitability of pre-assembling hose/clamp combinations reasonably pertinent to the problem of introducing clips onto an irrigation hose.

In sum, for the reasons discussed above, we agree with the Examiner that one of ordinary skill in the art would have considered claims 7 and 8 prima facie obvious in view of the cited prior art. Because Appellant has not presented sufficient evidence to rebut the Examiner's prima facie case of obviousness, we affirm the Examiner's rejection of claims 7 and 8.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED

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